SEMESTER EXAMINATION, DECEMBER-2024

Course Name: - B.tech **Semester:- Ist**

Paper Name: -Python Programming **PaperCode:-NES-103**

Time - 3 Hrs + 20 minutes per hour extra time for V.I. & examinees with writer. Max Marks-70

समय–3 घण्टे+ 20 मिनटप्रति घंटेअतिरिक्त–दृष्टिबाधित एवंसहलेखकपरीक्षार्थियों के लिए। अधिकतम अंक–70

Instructions:

- The question paper consists of three sections namely A, B, C. All sections are compulsory.
- Section A- Each question carries **3 mark. All questions are compulsory.**
- Section B- Answer any **5 out of 7** given questions. Each question carries **7 marks.**
- SectionC- Answer any **2 out of 3** given questions. Each question carries **10 marks.**

निर्देश:

- प्रश्नपत्र में तीन खण्ड अ, ब, व स हैं। सभी खण्ड अनिवार्य हैं।
- खण्ड–अ में प्रत्येक प्रश्न तीन अंक का है। सभी प्रश्न अनिवार्य हैं।
- खण्ड–ब में सात प्रश्नों में से किन्हीं पाँच प्रश्नों के उत्तर दें । प्रत्येक प्रश्न सात अंक का है।
- खण्ड–स में तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर दें। प्रत्येक प्रश्न 10 अंक का है।

Section – A (खण्ड–अ)

Objective Questions(वस्तुनिष्ठप्रश्न)

1. Answer allthe following questions. 5x3 =15

निम्नलिखित सभी प्रश्न अनिवार्य हैं।

i) Which type of programming does Python support?
   a) Object-oriented programming
   b) Structured programming
   c) Functional programming
   d) All of the above

ii) All keywords in Python are in____
   a) Capitalized
   b) Lower case
   c) Upper case
   d) None of the above

iii) Which keyword is used for function in Python language?
   a) Function
   b) def
   c) fun
   d) Define

iv) What will be the value of the following Python expression:4+3%5*((45/5)-8)?
   a) 7
   b) 6
   c) 8
   d) None of the above

v) _____ is used to create an object.
   a. class
   b. constructor
   c. user defined functions
   d. in built functions

Created by Lav Kush

Section – B (खण्ड–ब)
Short Answer Questions (लघुउत्तरीय प्रश्न)

2. Answer any five of the following questions. **5x7=35**

I. Differentiate between append() and insert() function of the List and state example for this?

(a) Define the set, frozenset and dictionary datatype in python with example

II. What is the difference between while and for loop? Write a program to print table of any number using while loop or for loop.

III. Write a program to check whether given no. is prime number or not.

IV. Explain the each data type of Python in detail with the help of example.

V. Define Armstrong no. and write a program to check the given no. is Armstrong no. or not.

VI. Define arguments and its each types with the help of examples.

VII. Define Exceptional handling and its components in detail with the help of example.

Section -C
Descriptive Questions(विवरणात्मकप्रश्न)

3. Answer any two of the following questions. **2x10=20**

i) Define class, objects, self parameter and __init__function and also write a program to print the data related to Students using class and objects concepts.

ii) Define Package and module in detail. Define os module with its each method and write the difference between Package and module.

iii) Write a program to check whether given no. is palindrome number or not and also write a program to print factorial of given number.

Section-D(Mid-Test)

Timing: 30 Minutes **Max. Marks:20**

4. Answer all the following questions. **10x2 =20**

निम्नलिखित सभी प्रश्न अनिवार्य हैं

(i) What do we use to define a block of code in Python language?

a. Key
b. Brackets
c. Indentation
d. None of these

(ii) Which character is used to define single line comment in Python?

a.//
b. #
c./
d.!

(iii) Which of the following declarations is incorrect?

a. _a=6
b. _xyz_=5
c. _b=7
d. None of these

Created by Lav Kush

(iv) Study the following program:

```
x=1
while True:
  if x%5= = 0:
    break
  print(x)
x + = 1
```

a. error
b. 2 1
c.0 3 1
d.None of these

(v) Which datatype is immutable in Python?
a. List
b. Frozen Set
c. Set
d. Dictionary

(vi) Python is ------language?
a. interpreted
b. compiler
c. both
d. none of the above

(vii)Study the following program:

```
X=(8,9,7,5,2,1)
print(x[6])
```

a. 2
b. 1
c. Index error
d.None of these

(viii) The variable which is define inside a function is called

a. Local variable
b. Global variable
c. both a and b
d. none of the above

(ix) What is a recursive function?
a. the functions calls itself
b. the functions calls other function
c. both a and b
d. none of the above

(x) The list is faster than a tuple
a. True
b. False
c. both are taking small times
d. sometimes it is true

.....

Created by Lav Kush